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EXAMINER

VORTMAN, ANATOLY

ART UNIT PAPER NUMBER

2835

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,369

Applicant(s)

RINALDI ET AL.

Examiner

Anatoly Vortman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 16-18 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: new independent claim 16 is directed to a system and recites in addition to the previously claimed "connector" also new system components: "a power supply" and/or "a communication device". The aforementioned system represents a combination, which includes said connector as a subcombination.

Since Applicant has received an action on the merits for the originally presented invention ("a connector"), this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-18 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

2. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102 / 35 USC § 103

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 and 13-15, are rejected under 35 U.S.C. 102(e) as being anticipated by US/2003/0013344 to Harris, IV (Harris) or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Applicant's Admitted Prior Art.

Regarding claims 1-11 and 13-15, Harris disclosed (Fig. 1-4) a connector (10), comprising:

at least one connector port (14) in the connector (10) to supply power or establish communications to a printed circuit board (column 5, lines 26+); a plurality of connector leads (20) to connect the at least one connector port (14) to the plurality of lead/traces embedded in or mounted on the printed circuit board (column 5, lines 26+); and

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a plurality of positive thermal coefficient switches (elements (152, 154, 190); column 8, lines 36+) embedded with or mounted on the connector and connected to the plurality of connector leads to cut off communications or power and protect at least one circuit in the printed circuit board, wherein a single connector lead (20) of the plurality of connector leads is connected to a positive thermal coefficient switch (190) of the plurality of the positive thermal coefficient switches (elements (152, 154, 190); column 8, lines 36+) provided as part of the connector (10) and provided between the at least one connector port (14) and the plurality of connector leads (20) to cut off communication or power to the plurality of the lead/traces contained within the printed circuit board (column 5, lines 26+) and connected to the at least one circuit in the printed circuit board.

Alternatively, the Applicant has admitted that connectors mounted on PCB with surface mounted thermal coefficient switches being mounted on said PCB have been known in the art at the time the invention was made (Fig. 1-3, p. 2 and 3 of the disclosure) and also has admitted that need had existed in the art at the time the invention was made to free up the space on the PCB board by eliminating the need for positive thermal coefficient switches being placed on the surface of or through a printed circuit board (p. 3, lines 13+ of the disclosure).

It would have been obvious to a person of ordinary skill in PCB or connector arts at the time the invention was made to modify the Applicant's Admitted Prior Art device by integrating the positive thermal coefficient switches with the connector by way of the relocation of said switches from the PCB to the connector, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893), and since it has been held that

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rearranging parts of an invention (i.e. relocating the switches from PCB to the connector) involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of US/6,305,987 to Crane, Jr. et al., (Crane).

Harris disclosed all of the claim limitations as apply to claims 8 and 9, but did not disclose a plurality of connector ports.

Crane disclosed (Fig. 17, 18) a connector comprising a plurality (two) ports.

Since the inventions of Harris and of Crane are from the same field of endeavor (connectors for PCB), the purpose of the connector having a plurality of ports disclosed by Crane would be recognized in the invention of Harris.

It would have been obvious to a person of ordinary skill in the connector or PCB arts at the time the invention was made to provide said connector of Harris with the plurality of ports as taught by Crane in order to adopt said device of Harris for a particular application, and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive.

Regarding the Applicant's position that Fig. 1-3 and the discussion thereof in a background section of the application should not have been treated as "Prior Art", since no

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such admission has been made, the Examiner believes that it is not necessary for the admission to be explicitly articulated. The Examiner considers record as a whole to decide what is admitted prior art and what is not. In the instant case, the Applicant is discussing (in the background section) the problems involved in the prior art, which are solved by the Applicant's invention. Fig. 1-3 depict prior art devices with specific problems (significant PCB space consumption) upon which improvements have been suggested by the present invention in order to solve said problems (i.e. space saving technique). Said problems existed in the art before the present invention was made. Said Fig. 1-3 are not depicting the device of the present invention, only that which is old is illustrated. Thus, said Fig. 1-3 should be designated by a legend such as --Prior Art--. See MPEP § 608.02(g).

Regarding the Applicant's position that "the electrical components 152, 154, and 190 are provided on the printed circuit board 136 and are not part of the connector" (p. 8, lines 1 and 2 of the amendment), please note that said printed circuit board (136) is a part of the connector and as such has been interpreted by the Examiner. There is another printed circuit board upon which the all connector assembly including said board (136) is mounted (Harris ('344), column 5, lines 26+). Evidently the Applicant is confusing both of the aforementioned printed circuit boards. The Examiner believes that it has been clearly articulated in the rejection that the connector assembly as a whole (i.e. including board (136)) is mounted on another circuit board (see Office Action (paper # 5), paragraph # 4, lines 6+).

Conclusion

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7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on 9:30-6:00, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Anatoly Vortman
Primary Examiner
Art Unit 2835

A.V.
May 6, 2003

